Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Prostate cancer: percentage of patients, regardless of age, with a diagnosis of prostate cancer at high or very high risk of recurrence, receiving external beam radiotherapy to the prostate who were prescribed adjuvant hormonal therapy (GnRH agonist or antagonist).

Source(s)

American Urological Association (AUA), American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®). Prostate cancer physician performance measurement set. Linthicum (MD): American Urological Association (AUA); 2014 Nov. 19 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients, regardless of age, with a diagnosis of prostate cancer at high or very high risk of recurrence, receiving external beam radiotherapy to the prostate who were prescribed adjuvant hormonal therapy (GnRH [gonadotropin-releasing hormone] agonist or antagonist).

Rationale

If receiving external beam radiotherapy as primary therapy, prostate cancer patients with a high or very high risk of recurrence should also be prescribed hormonal therapy, which has been shown to increase the effectiveness of the radiotherapy and may also prolong survival.*

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

When counseling patients regarding treatment options, physicians should consider the following:

Based on results of two randomized controlled clinical trials, the use of adjuvant and concurrent hormonal therapy may prolong survival in the patient who has opted for radiotherapy (Thompson et al., 2007).

High risk patients who are considering specific treatment options should be informed of findings of recent high quality clinical trials, including that for those considering external beam radiotherapy, use of hormonal therapy combined with conventional radiotherapy may prolong survival (Thompson et al., 2007).

Men with prostate cancer that is clinically localized stage T3a, Gleason score 8 to 10, or prostate-specific antigen (PSA) level greater than 20 ng/mL are categorized by the National Comprehensive Cancer Network (NCCN) guidelines panel as high risk. Patients with multiple adverse factors may be shifted into the very high-risk category. The preferred treatment is external beam radiation therapy (EBRT) in conjunction with 2 to 3 years of androgen deprivation therapy (ADT) (category 1); ADT alone is insufficient. In particular, patients with low-volume, high-grade tumor warrant aggressive local radiation combined with typically 2 or 3 years of ADT. The combination of EBRT and brachytherapy, with or without ADT (typically 2 or 3 years), is another primary treatment option. However, the optimal duration of ADT in this setting remains unclear. (NCCN, 2015).

Patients at very high risk (locally advanced) are defined by the NCCN guidelines as those with clinical stage T3b to T4, primary Gleason pattern 5, or more than 4 cores with Gleason score 8 to 10. The options for this group include: 1) EBRT and long-term ADT (category 1); 2) EBRT plus brachytherapy with or without long-term ADT; 3) radical prostatectomy plus (Pelvic lymph node dissection [PLND]) in selected patients with no fixation to adjacent organs; or 4) ADT for patients not eligible for definitive therapy. (NCCN, 2015).

Note: All aforementioned NCCN guideline recommendation statements are category 2A unless otherwise specified.

Evidence for Rationale

American Urological Association (AUA), American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®). Prostate cancer physician performance measurement set. Linthicum (MD): American Urological Association (AUA); 2014 Nov. 19 p.

National Comprehensive Cancer Network (NCCN). Clinical practice guidelines in oncology: prostate cancer. Version 2. Fort Washington (PA): National Comprehensive Cancer Network (NCCN); 2015.

Thompson I, Thrasher JB, Aus G, Burnett AL, Canby-Hagino ED, Cookson MS, D'Amico AV, Dmochowski RR, Eton DT, Forman JD, Goldenberg SL, Hernandez J, Higano CS, Kraus SR, Moul JW, Tangen CM. Guideline for the management of clinically localized prostate cancer: 2007 update. J Urol. 2007 Jun;177(6):2106-131. [123 references]

Primary Health Components

Prostate cancer; high risk of recurrence; external beam radiotherapy; adjuvant hormonal therapy; gonadotropin-releasing hormone (GnRH) agonist or antagonist

Denominator Description

All patients, regardless of age, with a diagnosis of prostate cancer at high or very high risk of recurrence receiving external beam radiotherapy to the prostate (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Patients who were prescribed adjuvant hormonal therapy (gonadotropin-releasing hormone [GnRH] agonist or antagonist) (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

The American Medical Association (AMA)-convened Physician Consortium for Performance Improvement (PCPI) in collaboration with the American Society of Clinical Oncology (ASCO), American Society for Radiation Oncology (ASTRO) and American Urological Association (AUA) conducted a testing project to ensure that the prostate cancer measures were feasible to implement, valid and reliable. Overall, the measures were found to be valid and reliable.

Face Validity Testing

Face validity of the measure score was assessed for three of the six prostate cancer measures. The Prostate Cancer Work Group members were asked to empirically assess face validity of the measure. The expert panel consisted of 19 members, whose specialties include urology, methodology, clinical oncology, radiation oncology, pathology, family medicine, and consumer and health plan representatives.

After the measure was fully specified, the work group was asked to rate their agreement with the following statement: "The scores obtained from the measure, as specified, will provide an accurate reflection of quality and can be used to distinguish good and poor quality."

Face Validity Testing Results

Measure Number and Title	N	Mean Rating	Percentage in Top Two Categories (4 and 5)	Frequency Distribution of Ratings*				
				1	2	3	4	5
#3 Avoidance of Overuse Measure - Bone Scan for Staging Low-Risk Patients	13	4.62	92.31%	0	1	0	2	10
#5 Adjuvant Hormonal Therapy for High-Risk Patients	14	4.57	92.86%	0	0	1	4	9
#6 Three-Dimensional Radiotherapy	14	3.93	78.57%	2	1	0	4	7

*Scale from 1 to 5, where 1 (Strongly Disagree); 3 (Neither Agree nor Disagree); 5 (Strongly Agree)

Reliability Testing

Inter-rater reliability testing (i.e., manual review of the patient medical record by two trained clinical abstractors and comparison of their individual findings) was conducted at five practice sites on all six of the prostate cancer measures. These sites represent various types, locations, and sizes. Agreement rates were calculated at the measure level for the denominator, numerator and exceptions categories. Measure agreement was established based on the results of this analysis.

Reliability Testing Results

The PCPI measure testing project revealed that all six of the measures demonstrated almost perfect agreement in the numerator category.

Evidence for Extent of Measure Testing

American Urological Association (AUA), American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®). Prostate cancer physician performance measurement set. Linthicum (MD): American Urological Association (AUA); 2014 Nov. 19 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Ambulatory Procedure/Imaging Center

Hospital Outpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

All ages

Target Population Gender

Male (only)

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

All patients, regardless of age, with a diagnosis of prostate cancer at high or very high risk* of recurrence receiving external beam radiotherapy to the prostate

Note:

Only male patients with prostate cancer with high or very high risk of recurrence will be counted in the performance denominator of this measure.
Refer to the original measure documentation for administrative codes.

*Risk Strata:

Very Low Risk: Prostate-specific antigen (PSA) less than 10 ng/mL; AND Gleason score 6 or less; AND clinical stage T1c; AND presence of disease in fewer than 3 biopsy cores; AND less than or equal to 50% prostate cancer involvement in any core; AND PSA density less than or equal to 0.15 ng/mL/cm³.
Low Risk: PSA less than 10 ng/mL; AND Gleason score 6 or less; AND clinical stage T1 to T2a.
Intermediate Risk: PSA 10 to 20 ng/mL; OR Gleason score 7; OR clinical stage T2b to T2c.
High Risk: PSA greater than 20 ng/mL; OR Gleason score 8 to 10; OR clinically localized stage T3a. Note: Patients with multiple adverse factors may be shifted into the very high risk category.
Very High Risk: Clinical stage T3b to T4; OR primary Gleason pattern 5; OR more than 4 cores with Gleason score 8 to 10.

Exclusions

Unspecified

Exceptions

Documentation of medical reason(s) for not prescribing/administering adjuvant hormonal therapy (e.g., salvage therapy)
Documentation of patient reason(s) for not prescribing/administering adjuvant hormonal therapy

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Patients who were prescribed* adjuvant hormonal therapy (gonadotropin-releasing hormone [GnRH] agonist or antagonist)

Note: Refer to the original measure documentation for administrative codes.

**Prescribed*: Includes patients who are currently receiving medication(s) that follow the treatment plan recommended at an encounter during the reporting period, even if the prescription for that medication was ordered prior to the encounter.

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Registry data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Measure #5: adjuvant hormonal therapy for high risk prostate cancer patients.

Measure Collection Name

Prostate Cancer Physician Performance Measurement Set

Submitter

American Urological Association - Medical Specialty Society

Developer

American Urological Association - Medical Specialty Society

Physician Consortium for Performance ImprovementÂ® - Clinical Specialty Collaboration

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

Prostate Cancer Work Group: Ian Thompson, MD (*Co-Chair*, urology); Steven Clauser, PhD (*Co-Chair*, methodology); Peter Albertsen, MD (urology); Charles Bennett, MD, PhD, MPP (clinical oncology); Michael Cookson, MD (urology); Gregory W. Cotter, MD (radiation oncology); Theodore L. DeWeese, MD (radiation oncology); Mario Gonzalez, MD (pathology); Louis Kavoussi, MD (urology); Eric A. Klein, MD (urology); Colleen Lawton, MD (radiation oncology); W. Robert Lee, MD, MS, Med (radiation oncology); Peter A. S. Johnstone, MD, FACR (radiation oncology); David F. Penson, MD, MPH (urology); Stephen Permut, MD (family medicine); Howard Sandler, MD (radiation oncology); Bill Steirman, MA (consumer representative); John T. Wei, MD (urology); Carol Wilhoit, MD (health plan representative)

American Urological Association: Robin Hudson, MPA; Beth Kosiak, PhD

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Facilitators: Timothy F. Kresowik, MD; Rebecca A. Kresowik

National Committee for Quality Assurance: Phil Renner, MBA

Joint Commission on Accreditation of Healthcare Organizations: Lisa Buczkowski, RN, MS; Elvira Ryan, RN

Financial Disclosures/Other Potential Conflicts of Interest

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

Endorser

National Quality Forum - None

NQF Number

not defined yet

Date of Endorsement

2014 Oct 1

Measure Initiative(s)

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2014 Nov

Measure Maintenance

This measure will be up for maintenance through the National Quality Forum (NQF) in late 2015 or early 2016.

Date of Next Anticipated Revision

Later 2015/early 2016

Measure Status

This is the current release of the measure.

This measure updates a previous version: American Urological Association, American Medical Association (AMA)-convened Physician Consortium for Performance Improvement®. Prostate cancer physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2012 Sep. 28 p.

The measure developer reaffirmed the currency of this measure in February 2017.

Measure Availability

Source not available electronically.

For more information, contact the American Urological Association (AUA) at 1000 Corporate Boulevard, Linthicum, MD 21090; Phone: 410-689-3700; Fax: 410-689-3800; Web site: www.auanet.org .

NQMC Status

This NQMC summary was completed by ECRI Institute on November 3, 2008. The information was verified by the measure developer on December 4, 2008.

This NQMC summary was edited by ECRI Institute on September 28, 2009.

This NQMC summary was retrofitted into the new template on June 9, 2011.

This NQMC summary was edited again by ECRI Institute on April 27, 2012.

This NQMC summary was updated by ECRI Institute on December 5, 2013. The information was not verified by the measure developer.

Stewardship for this measure was transferred from the PCPI to the AUA. AUA informed NQMC that this measure was updated. This NQMC summary was updated by ECRI Institute on May 28, 2015. The

information was verified by the measure developer on June 19, 2015.

The information was reaffirmed by the measure developer on February 7, 2017.

Copyright Statement

Production

Source(s)

American Urological Association (AUA), American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®). Prostate cancer physician performance measurement set. Linthicum (MD): American Urological Association (AUA); 2014 Nov. 19 p.

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